THE CLEMENTINE SPICE ARCHIVE; C. H. Acton, Jet Propulsion Laboratory, California Institute of technology

Cameras on the Clementine spacecraft returned nearly two million images, offering planetary scientists an abundance of research material. With this quantity of high resolution, multispectral images, having ready access to precision knowledge of the observing geometry for each is important to complete and economical data interpretation, This knowledge will be of further value when future lunar missions use the Clementine image archive as a database for correlative analyses. NASA selected the SPICE ancillary information system as the mechanism for assembling, archiving and providing researchers ready access to the spacecraft trajectory, lunar position and orientation, and camera pointing data needed to calculate pertinent observation parameters such as latitude, longitude, altitude and lighting angles. This poster provides prospective users of the Clementine images a "quick-look" summary of the SPICE ancillary data and software available for their use.

JPL's Navigation and Ancillary Information Facility (NAIF) coordinated production of SPICE data by Clementine's Mission Operations Team and several Science Team members. Each member of NASA's Clementine Science Team had access to these SPICE data files and the associated NAIF Toolkit software used to process these data. In addition, as an interim solution for finding appropriate images for analysis, NAIF constructed a simple, queryable image catalog containing 26 items for each image.

All of the SPICE data, the NAIF Toolkit, the SPICE-based image catalog, an orbit summary, a detailed sequence of events and a collection of mission and instrument documentation will be formally archived by NAIF as a part of the Planetary Data System's Clementine archive. This archive will be augmented as some researchers provide improved results for the cartographic quantities germane to the SPICE system. These products--and advice on their use—will be available to NASA researchers funded to analyze the Clementine data collection.